



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,482	12/14/2001	Ying-Fu Wang	BHT-3167-33	1012

7590 06/11/2003
DOUGHERTY & TROXELL
5205 LEESBURG PIKE, SUITE 1404
FALLS CHURCH, VA 22041

EXAMINER

ALAVI, ALI

ART UNIT PAPER NUMBER

2875

DATE MAILED: 06/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/014,482

Applicant(s)

WANG ET AL.

Examiner

Ali Alavi

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 3 is objected to because of the following informalities: line 2; delete "the" at the end of the sentence. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, line 7, " the lighting method of uniform line light source.." is vague and indefinite because it is unclear as to what applicant is referring to as the lighting method. Furthermore, the lighting method has not been defined in the specification.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8, 11, 12, 14, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torihara et al (US pat. No 6,412,969).

Regarding claims 1-4, as best understood from the claim language, Torihara discloses a backlighting device, comprising: a photo conductive plate (3, fig. 2, col. 8, 39), a light source (L, fig. 2), first diffusing top, which is beside the photo conductive plate (5, fig. 2, col. 8, line 37), use for diffusing the visible light from the light source, a second diffusing top (19, fig. 2, col. 12, lines 34-37), used for diffusing the visible light from the first diffusing top to the lighting method of uniform to light source, a diffuse reflect objective (14, fig. 2), which is below the photo conductive plate, used for diffusing the light and then reflecting the diffused light to the photo conductive plate. Torihara discloses the claimed invention as best understood except for the point source, LED. The examiner takes Official Notice that the use of LEDs is old and well known in the illumination art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute an LED for the light source in the system of Torihara. One would have been motivated since LEDs are recognized in the illumination art to have many desirable advantages, including reduced size, high efficiency, low power consumption, long life, resistance to vibrations, and low heat production, over other light sources.

Claims 5-7, and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torihara et al (US pat. No 6,412,969) in view of Hosseini (US pat. No 6,347,873).

Regarding claims 5-7, and 9-10, Torihara discloses the claimed invention as applied above in claim 1 and 4, but does not disclose that light diffusing top comprises a shape of circle, ellipse, square, or a v shape. Hosseini, on the other hand, discloses a backlight assembly with a light pipe having an integral surface diffuser including

Art Unit: 2875

different shape of structure (cols. 3-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the backlighting device of Torihara by having different shape of diffusing structure as taught by Hosseini, since it has been held that constructing a formerly integral structure in various elements requires only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Allowable Subject Matter

4. Claim 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. Claim 13 recites in part "...the device further comprises an air gap between the photo conductive plate and the first diffusing top, wherein said air gap is used for transferring the visible light of the point light source to the lighting method of line light source."

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Simms (US Pat. No. 5,590,945) discloses an illuminated line of light using point light source. Kojima et al (US pat. No 5,377,084) discloses a surface illumination with multi layer light diffusing member. Parker et al (US Pat. No 5,618,096) discloses a light emitting panel assemblies including a light transition area having different shape of deformities such as circle, oval, V shape and etc. All aforementioned references are cited of interest.

Art Unit: 2875

6. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Ali Alavi whose telephone number is (703) 305-0522. The examiner can normally be reached between 8:00 A.M. to 4:30 P.M. Monday to Friday. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Sandy O'Shea can be reached at (703) 305-4939 or you may fax your inquiry to the receptionist at (703) 308-7382.

AU 2875

Ali Alavi

A handwritten signature in black ink, appearing to read 'Ali Alavi', with a stylized flourish at the end.

6/04/03